## ABSTRACT OF THE DISCLOSURE

A method is provided for transmitting data packets over a bi-directional contention and reservation based network. The network includes an operably linked system controller for receiving upstream channel packets and originating downstream channel packets. At least one operably linked remote terminal is included for receiving the downstream channel packets and originating the upstream channel packets. The system controller provides periodically allocated grants to the at least one remote terminal in the downstream channel for scheduling data packet transfers in the upstream channel. The periodically allocated grants have a fixed bandwidth size. The system controller also provides dynamically allocated grants to the at least one remote terminal in the downstream channel upon request of the at least one remote terminal for scheduling data packet transfers in the upstream channel. The dynamically allocated grants are of a requested bandwidth size. The bandwidth size of a data packet of a stream of packets to be transmitted from the at least one remote terminal through the upstream channel is determined and if it is greater than the size of the periodically allocated grant a dynamically allocated grant is requested. The dynamically allocated grant is requested to be of a bandwidth size equivalent to the bandwidth size by which the data packet exceeds the size of the periodically allocated grant. A first portion of the data packet is transmitted in response to the periodically allocated grant along with the dynamically allocated grant request. The remaining portion of the data packet is transmitted in response to a next available grant.